



VACCINIUM CORYMBOSUM / ASHEI

Blueberry

SUBSTRATE GUIDE

Open top bag specifications for commercial blueberry production. The most acid-tolerant substrate programme in this guide — pH 4.5–5.5, chip-dominated blends for maximum drainage.

WHAT'S INSIDE



- ✓ **Growth stage guide:** 7 stages from establishment to peak production
- ✓ **Critical: pH 4.5–5.5 management** — unique in substrate production
- ✓ **Chip-dominant blends** and perlite mixing for drainage
- ✓ **Propagation:** cuttings and bare-root establishment
- ✓ **EC programme** — low tolerance, careful nutrient management
- ✓ **Quality metrics:** runoff pH and EC targets for ericaceous crops
- ✓ **Variety guide:** SHB, NHB, Rabbiteye — substrate requirements per type

► Grow Cubes

10×10 cm (cutting propagation)



► Open Top Bags

15–20L

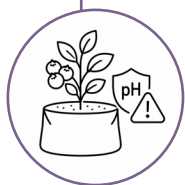
High-Chip Blend
(30/70 or 50/50)



Critical: Blueberry requires pH 4.5–5.5 — significantly lower than all other crops in this guide. Acidify substrate before planting.

Why Coco Peat for Blueberry?

Blueberry is the most pH-demanding substrate crop — coco peat allows precise pH control unlike field soil.



Critical pH requirement: blueberry requires pH 4.5–5.5 in the root zone at all times.

Above pH 5.8, iron and manganese become unavailable — plants turn yellow (chlorosis) and lose vigour within 2–4 weeks.



PH CONTROL PRECISION

Field soil pH is extremely difficult to maintain below 5.5 across a blueberry field. Coco peat in closed bags allows precise pH management — you control the root zone pH exactly.



DRAINAGE FOR ERICACEOUS ROOTS

Blueberry has very fine, fibrous root hair structure (no root hairs — relies on mycorrhizae). These roots need maximum oxygen. Chip-dominant or 50/50 blends prevent any waterlogging.



EXTENDED SEASON FLEXIBILITY

Open top bags allow year-round management: easy replacement, movement into polytunnels in winter, and simple isolation of sick plants.



LOW EC TOLERANCE

Blueberry is the most salt-sensitive substrate crop. EC > 2.5 mS/cm causes leaf tip-burn and yield loss. Low-EC Rise Substrates coco peat provides the safe base needed.



MYCORRHIZAL HABITAT

Natural coco pith supports Ericoid mycorrhizal fungi (Hymenoscyphus) — critical for blueberry nutrient uptake. Do not sterilize or treat substrate before planting.



COST VS. SOIL AMENDMENT

Acidifying field soil with sulfur costs thousands per hectare. Blueberry substrate bags at set pH 4.5–5.0 eliminate the entire soil amendment programme.

pH management for blueberry in coco peat

Pre-wet bags with acidified water (pH 4.5) before planting. Use citric acid or acidified fertiliser blend to maintain feed pH 4.0–4.5 throughout.

Check runoff pH every 2 weeks. If pH rises above 5.5: apply one plain-water irrigation at pH 3.8 to flush accumulated bicarbonate.

Blueberry
Delivers up to

40%

higher yields
with coco coir
substrates.

Propagation Methods

Cuttings, bare-root, and pot-grown transplants for commercial blueberry substrate production.



1

SOFTWOOD / HARDWOOD CUTTINGS

Most commercial blueberry substrate programmes start with rooted cuttings from certified stock. Propagate in coco cubes at low pH.

- ▶ Take 10–15 cm cuttings from 2-year wood (hardwood) or current season shoots (softwood)
- ▶ Dip in rooting hormone (IBA 3,000 ppm) and insert into 10×10 Grow Cube at pH 4.8, EC 0.3
- ▶ Rooting: 4–8 weeks at 18–22°C with high humidity. Keep substrate moist but never saturated
- ▶ Once rooted, move cube into 15–20L Open Top Bag (30/70 chip-pith, pH 4.8–5.0)

Rooting 4–8 weeks

EC RANGE

0.3 mS/cm

pH TARGET

4.8

RISE PRODUCTS

Grow Cubes 10×10 cm (pH 4.8)
Open Top Bags 15–20L

2

BARE-ROOT PLANTS (CERTIFIED NURSERY)

Standard for commercial blueberry establishment. 2–3 year certified bare-root from tissue culture or certified mother stock. Plant directly into bags.

- ▶ Pre-wet bags 24 hrs before planting at pH 4.5–4.8, EC 0.5 mS/cm
- ▶ Plant crown at correct depth — same level as nursery soil line (not deeper)
- ▶ First season: EC 0.5–0.8 mS/cm only — establishment priority, not yield
- ▶ Mulch bag surface with 2cm layer of dry coco chips to reduce evaporation

Focus Establishment

EC RANGE

0.5–0.8 mS/cm

pH TARGET

4.5–4.8

RISE PRODUCTS

Open Top Bags 15–20L (30/70 or 50/50 blend, pre-acidified to pH 4.8)

Growth Stage Guide & Blend Specifications

Seven stages from establishment through peak production. pH management is the primary control lever for blueberry.



STAGE-BY-STAGE EC, PH & SUBSTRATE TARGETS

Cutting / Bare-Root Establish	0–8	0.3–0.8	4.8–5.2	Grow Cube / Bag 30/70	1–2×/day	pH establish, root growth
First Season Vegetative	8–26	0.8–1.2	4.8–5.2	OT Bags 30/70	2–3×/day	Canopy, root fill-out
2nd Season Vegetative	Yr 2	1.0–1.5	4.8–5.0	OT Bags 30/70	3–4×/day	Stem renewal, lateral growth
Flower Bud Init. (Autumn)	Yr 2 autumn	1.2–1.8	4.8–5.0	OT Bags 30/70	2–3×/day	K-rich feed, harden off
Bud Break & Flowering	Yr 3 spring	1.0–1.5	4.8–5.2	OT Bags 30/70	3–5×/day	Pollinators, bee access
Fruit Development	Yr 3 early	1.5–2.0	4.8–5.0	OT Bags 30/70	5–8×/day	Size, cell division
Peak Production & Ripe	Yr 3+	1.8–2.5	4.8–5.0	OT Bags 30/70	6–10×/day	Brix, colour, firmness

BLEND OPTIONS FOR BLUEBERRY OPEN TOP BAGS

Parameter	30/70 Pith-Chip (Standard Blueberry)	50/50 Pith-Chip (General use)	30/70 + Perlite 10% (Max drainage)	Grow Cube / Bag 30/70	pH establish, root growth
AFP	32–38%	28–33%	40–46%	OT Bags 30/70	Canopy, root fill-out
WHC	50–55%	55–60%	44–48%	OT Bags 30/70	Stem renewal, lateral growth
Best for	All blueberry systems	Cooler climates	High-humidity glasshouses	OT Bags 30/70	K-rich feed, harden off
Root rot risk	Low	Moderate	Very low	OT Bags 30/70	Pollinators, bee access
pH stability	Standard	Standard	Slightly faster pH drift	OT Bags 30/70	Size, cell division

Blueberry pH rule: Maintain feed pH 4.0–4.5. Check runoff pH every 2 weeks. If runoff pH > 5.5: apply one acidified flush at pH 3.8 and recheck.

Quality Metrics

Monitoring parameters, blueberry types, and reference for other ericaceous and substrate crops.



SUBSTRATE QUALITY MONITORING FOR BLUEBERRY

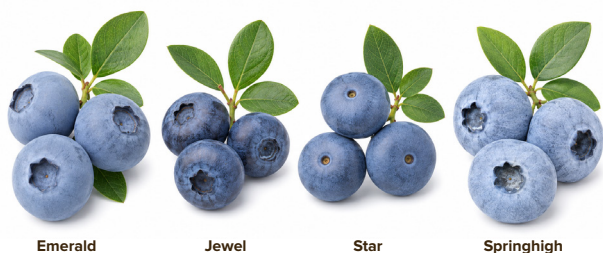
Parameter	Target range	Frequency	Action if out of range
Feed EC	0.5–2.5 mS/cm	Every feed batch	Dilute or concentrate accordingly
Feed pH	4.0–4.5	Every feed batch	Adjust with citric acid or sulfuric acid (diluted)
Runoff EC	< Feed + 1.0	Weekly	Flush with acidified water if > Feed + 1.5
Runoff pH	4.5–5.5	Every 2 weeks	Acidified flush if > 5.5; contact Rise Substrates
Substrate EC (squeeze test)	0.5–2.5 mS/cm	Monthly	Dilution flush if > 2.5 — critical for blueberry
Bag moisture (squeeze test)	Firm, moist	Daily visual	Irrigate if dry. Reduce if dripping (Phytophthora risk)
Drain %	20–30%	Daily	Increase irrigation freq. if < 15% at fruiting

Variety Guidance & Substrate Adjustments

Different blueberry types behave differently in coco peat — knowing your variety helps you tune EC and blend.



Southern Highbush (SHB)



Bag 30/70 blend, 15–20L OT Bag

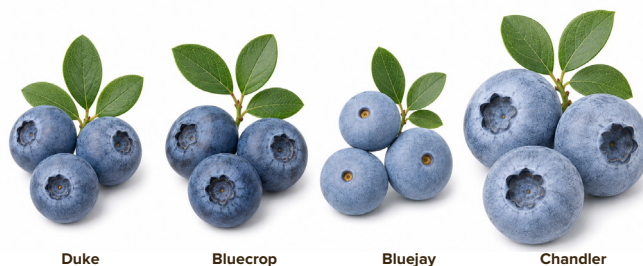
EC 1.5–2.2 mS/cm

pH 4.8–5.2



Most popular substrate variety. Semi-evergreen. Low chill requirement. Highly productive. Standard programme applies. Space 40–50cm between bags.

Northern Highbush (NHB)



Bag 30/70 or 50/50, 15–20L OT Bag

EC 1.2–1.8 mS/cm

pH 4.5–5.0



Higher chill requirement. More pH sensitive than SHB. Larger berries but lower yield/m². Better for cold climate tunnels. Slower EC ramp — maximum 0.2 mS/cm/week.

Rabbiteye



Bag 50/50 blend, 15–20L OT Bag

EC 1.5–2.5 mS/cm

pH 4.8–5.5



Most vigorous. Highest pH tolerance within blueberry range. Better for warmer climates. Slightly higher EC tolerance. Good for growers new to ericaceous substrate.

READY TO GROW?

Let's Build Your Blueberry Programme

Share variety type, climate zone, and water pH/hardness. Our team will configure your full pH management programme, bag specification, and fertigation schedule for ericaceous production.

Also Available — Crop-Specific Brochures

→ Tomato

→ Cucumber

→ Herbs & Leafy Greens

→ Strawberry

→ Bell Pepper

→ Roses

Also: Greenhouse Grower Guide | Propagation Nursery Guide | Distributor & Formulator Guide
Request any brochure at: muthu@risesubstrates.com

Get in Touch

Web: risesubstrates.com

E-mail: tharani@risesubstrates.com

11, Chakrapani St, opp. Scan Point, Venkatas Colony,
Pollachi, Tamil Nadu 642001

OMRI Listed | ISO 9001 | Coir Board Approved

Whats App: [+91 72002 43337](https://wa.me/917200243337) | [+91 72002 63337](https://wa.me/917200263337)

